

REMARKS

This amendment is being filed in response to an Office Action mailed 09/17/2005, in which the Examiner said that claims 1-17 were pending but rejected.

Response to Objections to the Specification

5 In the above-mentioned Office Action, the Examiner said that the title of the invention was not descriptive, indicating tha a new title is required and suggesting "INTERRUPT CONTROL DEVICE WHICH SENDS DATA TO PROCESSOR AT AN OPTIMIZED TIME" In this amendment, the title is changed to "INTERRUPT CONTROL DEVICE SENDING DATA TO A PROCESSOR AT AN OPTIMIZED
10 TIME." The Examiner also requested the title to be made the same throughout various documents in the application. The Applicant earnestly requests the Examiner's assistance in determining which documents are to be changed. The Applicant believes that the Declaration cannot be amended and that a substitute Declaration is not required due to a change in the title, and additionally that
15 assignment documents are not to be changed, since they contain language referring to any patent based on the application. Further guidance in this matter is requested.

The Examiner also said that, in line 6 of the BACKGROUND, "10-275136" should be changed to "JP10-275136," and that, in line 4 of the third paragraph of the
20 BACKGROUND "polling" is misspelled. In this amendment, these errors are corrected.

Claims Rejected under 35 USC §112

In the above-mentioned Office Action, the Examiner said that claims 1-17 were rejected under 35 USC §112, second paragraph.

5 **Regarding claims 1, 15, 16, and 17**, the Examiner said that, if the interrupt is issued prior to data acquisition, it is not clear how the interrupt indicates the data has become available. The Examiner further indicated that he would interpret this limitation, for examination purposes, to mean that the interrupt is sent to the central processing unit before said object acquiring unit receives all said data or
10 said resource, indicating that some said data or said resource has become available.

In this amendment, claim 1 is modified to eliminate references to data being acquired, leaving the formerly alternative references to requiring resource(s). Claim 1 is additionally modified to indicate that the interrupt is issued "after a predetermined setup period elapses from when a resource reservation device
15 reserving said resource starts reserving said resource," indicating how it is known that the resource is becoming available before it has become available. Support for these modifications is found in the specification as originally filed within the third complete paragraph in page 7.

In this amendment, claims 15-17 are amended to include requirements that the
20 interrupt is issued "after a predetermined setup period elapses from when a data generation device generating said data starts to generate said data or from when a resource reservation device reserving said resource starts reserving said resource," indicating how it is known that the data or resource is becoming available. Support for this change is found in the specification as originally filed in
25 the third full paragraph of page 7 of the specification as originally filed.

Thus, the process of issuing an interrupt is initiated by beginning the generation of data or beginning the process of reserving a resource. It is not necessary to have a predetermined portion of the data generated or a predetermined portion of the device reserved, if this is indeed possible, as indicated by the Examiner's interpretation.

Furthermore, in both the specification and the claims, indications that the interrupt indicates that the interrupt indicates that the data or resource is available are changed for clarification to indicate instead that the interrupt indicates that the data or resource is becoming available. Support for such modifications is found in the third complete paragraph of page 7 within the specification as originally filed, where it is indicated that the interrupt issuing unit 210 issues an interrupt *before the object acquiring unit acquires that data or resource*.

Regarding claim 7, the Examiner said that it was not clear as to what a "predetermined small value" is. In this amendment, this matter is qualified by adding, "said predetermined small value being small compared to an average time between an interrupt being issued and said central processing unit which has received said interrupt requesting the use of said data segment." Support for this change is found in the specification as originally filed in the fifth complete paragraph on page 15, with the setup period being described as small compared to the interrupt latency, and in Figure 3a, which shows the meaning of interrupt latency.

Regarding claim 8, the Examiner said that it was not clear as to what type of "distribution of said time differences" the setup period changes the setup period according to. In this amendment, this claim is changed to indicate that said setup period change unit changes said setup period to cause an average value of a distribution of said time differences measured by said time difference measuring

unit to become substantially zero. Support for this change is found in the specification as originally filed in the fifth full paragraph on page 15.

5 **Regarding claim 9**, the Examiner said that it was not clear what “a predetermined percentage of said time differences” is determined. In the context of the claim, as explained on the first complete paragraph of page 16 of the specification, the number is simply chosen to make it unnecessary to use all of the time differences, since some of the time differences may be long compared to the others or their average. The Applicant respectfully submits that no further explanation is necessary in this regard.

10 The Examiner also said that it was not clear what the “predetermined value” is or how it is determined. In this amendment, this claim is amended to indicate that the predetermined value is approximately zero. Support for this modification is found in the specification as originally filed in the first full paragraph of page 16.

Claims Rejected under 35 USC §103

15 **Regarding claims 1 and 15-17**, in the above-mentioned Office Action, the Examiner said that these claims were rejected under 35 USC §103(a) as being obvious over U.S. Pat. No. 6,397,282 to Hashimoto et al. in view of U.S. Pat. No. 6,397,282 to Williams et al.

20 **Regarding claim 1**, in this amendment, this claim was modified to eliminate references to data being acquired, leaving the formerly alternative references to requiring resource(s). Claim 1 is additionally modified to indicate that the interrupt is issued “after a predetermined setup period elapses from when a resource reservation device reserving said resource starts reserving said resource.” Support for these modifications is found in the specification as originally filed
25 within the third complete paragraph in page 7.

The Examiner additionally said that Hashimoto discloses an object acquiring unit (Fig. 3, item 22, Column 11, line 1) for acquiring data or resource(s) for use by said central processing unit. Regarding this statement, the Applicant notes that item 22 of Fig 3 is a character buffer for assembling sampled bits into a byte, as described in column 5, lines 30-31, and that column 11, line 1, describes "a storage for storing data of a message being received." Thus, the Applicant respectfully submits that, while Hashimoto discloses an object acquiring unit for acquiring data, an object acquiring unit for acquiring resource(s), as required by claim 1, as amended herein is not described, with the object acquiring unit of Hashimoto only acquiring data.

Furthermore, the Examiner said that Hashimoto discloses an interrupt issuing unit for issuing an interrupt to said central processing unit before said object acquiring unit acquires said data or said resource, said interrupt indicating that said data or said resource has become available (Fig. 3, item 26, Column 11, lines 15-19). Regarding this statement, the Applicant notes that item 26 of Fig. 3 is a transmission controller operating in response to a signal from a CTL controller 25, that decodes two bits in the CTL field of a message that has been received, as described in column 6, line 65, through column 7, line 8. The Applicant further notes that column 11, lines 15-19 describe the transmission controller as generating an interrupt request for transferring the data when the data stored in the storage have reached a predetermined volume. Thus, these elements of Hashimoto are associated with receiving data, not with reserving resources, with the interrupt indicating that the resource is becoming available, as required by claim 1, as modified herein.

The Examiner additionally indicated that Williams discloses a use delay unit (column 3, lines 8-21) delaying the use of said data or said resource by said central processing unit if said central processing unit, which has received said interrupt requests the use of said data or said resource before said object

acquiring unit acquires said data or said resource. The Applicant notes that Williams specifies this operation to occur if an information packet is still being received. Thus, this process deals only with receiving information, not with requesting a resource, as required by claim 1, as modified herein. Furthermore, adding the teachings of Williams to those of Hashimoto does not overcome the deficiencies of Hashimoto in describing the elements of claims 15-17.

For the reasons described in detail above, the Applicant respectfully submits that Hashimoto and Williams, taken separately or together, do not teach or otherwise anticipate the requirements of claim 1, as amended herein for:

an object acquiring unit for acquiring resource(s) for use by said central processing unit;

an interrupt issuing unit for issuing an interrupt to said central processing unit before said object acquiring unit acquires said resource, said interrupt indicating that said resource will become available; and

a use delay unit for delaying the use of said resource by said central processing unit until said object acquiring unit acquires said data or said resource if said central processing unit which has received said interrupt requests the use of said resource before said object acquiring unit acquires said resource.

Therefore, the Applicant respectfully submits that claim 1, as amended herein, is patentable under 35 USC §103(a) over Hashimoto in view of Williams.

Regarding claims 15-17, in this amendment, these claims are amended to include requirements that the interrupt is issued “after a predetermined setup period elapses from when a data generation device generating said data starts to

generate said data or from when a resource reservation device reserving said resource starts reserving said resource.” Support for this change is found in the specification as originally filed in the third full paragraph of page 7.

5 The Examiner additionally said that Hashimoto discloses an object acquiring unit (Fig. 3, item 22, Column 11, line 1) for acquiring data or resource(s) for use by said central processing unit. Regarding this statement, the Applicant notes that item 22 of Fig 3 is a character buffer for assembling sampled bits into a byte, as described in column 5, lines 30-31, and that column 11, line 1, describes “a storage for storing data of a message being received.” Thus, the Applicant
10 respectfully submits that, while Hashimoto discloses an object acquiring unit for acquiring data, an object acquiring unit for acquiring data or resource(s), as required by claim 15 is not described, with the object acquiring unit of Hashimoto only acquiring data. Similarly, a method including acquiring data or resource(s), as required by claims 16 and 17 is not described, with the method of Hashimoto
15 only acquiring data.

Furthermore, the Examiner said that Hashimoto discloses an interrupt issuing unit for issuing an interrupt to said central processing unit before said object acquiring unit acquires said data or said resource, said interrupt indicating that said data or said resource has become available (Fig. 3, item 26, Column 11, lines 15-19).
20 Regarding this statement, the Applicant notes that item 26 of Fig. 3 is a transmission controller operating in response to a signal from a CTL controller 25, that decodes two bits in the CTL field of a message that has been received, as described in column 6, line 65, through column 7, line 8. The Applicant further notes that column 11, lines 15-19 describe the transmission controller as
25 generating an interrupt request for transferring the data when the data stored in the storage have reached a predetermined volume. Thus, these elements of Hashimoto are associated with receiving data, not with reserving resources, with

the interrupt indicating that the data or the resource becoming available, as required by claims 15-16 not being described.

Furthermore, the Applicant respectfully submits that Hashimoto fails to describe the requirement of claims 15-17, as amended herein, for the interrupt to be issued
5 “after a predetermined setup period elapses from when a data generation device generating said data starts to generate said data or from when a resource reservation device reserving said resource starts reserving said resource,” instead teaching that the interrupt should be generated when the data stored with in the data storage has reached a predetermined volume.

10 The Examiner additionally indicated that Williams discloses a use delay unit (column 3, lines 8-21) delaying the use of said data or said resource by said central processing unit if said central processing unit, which has received said interrupt requests the use of said data or said resource before said object acquiring unit acquires said data or said resource. The Applicant notes that
15 Williams specifies this operation to occur if an information packet is still being received. Thus, this process deals only with receiving information, not with requesting a resource, as required as an option by claims 15-17. Furthermore, adding the teachings of Williams to those of Hashimoto does not overcome the deficiencies of Hashimoto in describing the elements of claims 15-17.

20 The Applicant additionally respectfully submits that neither Williams nor Hashimoto teach, describe, or otherwise anticipate the requirement of claims 15-17, as amended herein for the interrupt to be issued after a predetermined setup period elapses from when a data generation device generating said data starts to generate said data or from when a resource reservation device reserving said
25 resource starts reserving said resource.

For the above reasons, the Applicant respectfully submits that Hashimoto and Williams, taken separately or in combination, fail to teach, disclose, or otherwise anticipate the requirements of claim 15, as amended herein, for

5 an object acquiring unit for acquiring resource(s) for use by said central processing unit;

10 an interrupt issuing unit for issuing an interrupt to said central processing unit before said object acquiring unit acquires said data or said resource, after a predetermined setup period elapses from when a data generation device generating said data starts to generate said data or from when a resource reservation device reserving said resource starts reserving said resource; and

15 a use delay unit for delaying the use of said data or said resource by said central processing unit until said object acquiring unit acquires said data or said resource if said central processing unit which has received said interrupt requests the use of said data or said resource before said object acquiring unit acquires said data or said resource.

20 For the above reasons, the Applicant respectfully submits that Hashimoto and Williams, taken separately or in combination, fail to teach, disclose, or otherwise anticipate the requirements of claim 16 and 17, as amended herein, for a method to include:

 acquiring resource(s) for use by said central processing unit;

 issuing an interrupt to said central processing unit before said data or said resource is acquired at said acquiring step, after a predetermined setup period elapses from when a data generation device generating said data

starts to generate said data or from when a resource reservation device reserving said resource starts reserving said resource,

5 delaying the use of said data or said resource by said central processing unit until said data or said resource is acquired if said central processing unit which has received said interrupt requests the use of said data or said resource before said object acquiring unit acquires said data or said resource.

Therefore, the Applicant respectfully submits that claim 1, as amended herein, is patentable under 35 USC §103(a) over Hashimoto in view of Williams.

10 **Regarding claims 2-5, 10, and 12-14**, in the above-mentioned Office Action, the Examiner said that these claims were rejected under 35 USC §103(a) as being unpatentable over Hashimoto-Williams as applied to claim 1 and further in view of U.S. Pat. No. 6,115,776 to Reid et al.

15 **Regarding claim 2**, in this amendment, this claim is rewritten to include all of the limitations of claim 1 regarding interrupts associated with data that has been received, while the alternative arrangements for interrupts associated with the acquisition of resource(s) are omitted. Support for this modification is found in the specification as originally filed in the third complete paragraph on page 7.

20 The Examiner said that Hashimoto-Williams does not disclose expressly the requirement of claim 2 wherein said interrupt issuing unit issues said interrupt after a predetermined set up period elapses from when a data generation device generating said data starts to generate said data, but that Reid discloses this limitation, as described in column 9, lines 6-15.

Regarding this statement, the Applicant notes that, in the cited portion, Reid requires the time period of interrupt deferral to be determined by counting a number of packets requiring interrupts and by setting a timer triggered by an interrupt event and generating an interrupt after said number of packets accumulates or after a predetermined period of time elapses. This requirement of Reid is placed to eliminate a need to generate an interrupt for each packet that is received, as such a large number of interrupts would place an unnecessary burden on the host processor. In this way, only one interrupt is generated after the required number of packets have been received. However, this required number of packets may not be received in a long time, so the interrupt is alternatively generated after a predetermined time expires. In column 3, line 59, through column 4, line 21, Reid indicates that the interrupt triggering event is not a packet of data being received, but rather the completion of a DMA cycle, with the interrupt that is delayed being a DMA completion interrupt that is delayed to allow for the accumulation of additional data packets.

Therefore, the Applicant respectfully submits that Hashimoto, Williams, and Reid, taken separately or in any combination, fail to anticipate the requirement of claim 2 for the interrupt to be issued after a predetermined setup period elapses from when a data generation device generating said data starts to generate said data. Reid instead teaches measuring a time, not from a time in which data is generated, but rather from the time a DMA cycle is completed. Furthermore, the interrupt delay time of Reid is determined in response to the accumulation of a number of data packets, so that it cannot be predetermined.

For the above reasons, the Applicant respectfully submits that claim 2, as amended herein, is patentable under 35 USC §103(a) over Hashimoto in view of Williams and further in view of Reid.

Regarding claim 3, the Examiner additionally said that Reid discloses a time difference measuring unit, on column 9, lines 6-15, for measuring a time difference between when said object acquiring unit acquires said data and when said central processing unit which has received said interrupt request for the use of said data. Regarding this statement, the Applicant respectfully submits that the interrupt-triggering event mentioned in Claim 1, from which the cited material is taken, is not the receiving of data, but rather the completion of a DMA cycle, which triggers an interrupt that is delayed to allow the accumulation of a number of data packets, as further described in the Summary of the Invention, column 3, line 59, through column 4, line 21. There is no indication that a time is measured from the object acquiring unit acquiring data and a request for the data from the central processing unit, as required by the Applicant's claim 3..

The Examiner further said that Reid discloses a setup period change unit, on column 9, lines 27-29, for changing said predetermined setup period according to said time difference. The Applicant respectfully submits that this cannot be done, since the apparatus of Reid does not measure said time difference of the Applicant's claim 3.

Thus, the Applicants respectfully submit that Hashimoto, Williams, and Reid, taken separately or in combination do not disclose or teach the requirements of claim 3 for:

a time difference measuring unit for measuring a time difference between when said object acquiring unit acquires said data and when said central processing unit which has received said interrupt requests the use of said data; and

a setup period change unit for changing said predetermined setup period according to said time difference.

Therefore, and additionally because claim 3 merely adds these limitations to claim 2, which is believed to be patentable as described above, the Applicant respectfully submits that claim 3 is patentable under 35 USC §103(a) over Hashimoto in view of Williams and further in view of Reid.

5 **Regarding claim 4**, the Examiner said that Williams discloses an acquisition time measuring unit (Fig. 11, item 270, and column 14, items 14-18) for measuring an acquisition time from when said data generation device starts to generate said data until said object acquiring device acquires said data.

10 As described above relative to the rejection of claim 3, the Applicant respectfully submits that prior art cited by the Examiner fails to provide the time difference as defined within claim 3. Therefore, it is believed that Hashimoto, Williams, and Reid, taken separately or in combination, fail to anticipate the requirement of claim 4 for the setup period change unit to change said predetermined setup period according to said acquisition time and said time difference. For this reason, and
15 additionally because claim 4 merely adds limitations to claim 3, which is believed to be patentable as described above, the Applicant respectfully submits that claim 4 is patentable under 35 USC §103(a) over Hashimoto in view of Williams and further in view of Reid.

20 **Regarding claim 5**, the Examiner said that Reid discloses a limitation, not disclosed by Hashimoto and Williams, that said interrupt issuing unit (column 9, lines 6-15) issues an interrupt to said central processing unit before said object acquiring unit acquires each of said plurality of data segments, each said interrupt indicating that the respective one of said plurality of data segments, each said
25 interrupt indicating that the respective one of said plurality of data segments has become available. Regarding this statement, the Applicant respectfully submits that Reid instead discloses the generation of a single interrupt, on column 9, lines 13-15 after receiving a plurality of data segments, in the form of packets, thus

teaching against the generation of an interrupt for each of the data segments, as required by the Applicant's claim 5.

Furthermore, the Examiner said that Reid discloses a limitation, not disclosed by Hashimoto and Williams, that said time difference measuring unit (column 9, lines 5-15). measures, for each of said plurality of data segments, the time difference between when said object acquiring unit acquires said data segment and when said central processing unit which has received said interrupt requests the use of said data segment. Regarding, this statement, the Applicant respectfully submits that the referenced material from Reid instead describes the establishment of a time period for interrupt deferral determining a number of packets received and by setting a timer when an interrupt event, previously indicated to be the completion of a DMA cycle, as described above in reference to the rejection of claim 2, occurs. Reid does not describe measuring the time difference between when said object acquiring unit acquires said data segment and when said central processing unit as required by the Applicant's claim 5. Additionally, since time differences are not measured in this way, Reid does not describe changing said setup period according to the time differences measured by said time difference measuring unit.

For all the above reasons, the Applicant respectfully submits that Hashimoto, Williams, and Reid, taken separately or in combination, fail to disclose or otherwise anticipate the requirements of claim 5 for:

said interrupt issuing unit issues an interrupt to said central processing unit before said object acquiring unit acquires each of said plurality of data segments, each said interrupt indicating that the respective one of said plurality of data segments has become available;

said time difference measuring unit measures, for each of said plurality of data segments, the time difference between when said object acquiring unit acquires said data segment and when said central processing unit which has received said interrupt requests the use of said data segment; and

5 said setup period change unit changes said setup period according to the time differences measured by said time difference measuring unit

Therefore, the Applicant respectfully submits that claim 5 is patentable under 35 USC §103(a) over Hashimoto in view of Williams and further in view of Reid.

10 **Regarding claim 10**, since this claim merely adds limitations to claim 2, which is believed to be patentable as described above, the Applicant respectfully submits that, for reasons described above regarding claim 2, claim 10 is patentable under 35 USC §103(a) over Hashimoto in view of Williams and further in view of Reid.

15 **Regarding claims 12-14**, these dependent claims merely add limitations to claim 1. the Applicant notes that adding the teachings of Reid to those of Hashimoto and Williams does not overcome the deficiencies of Hashimoto and Williams in describing the limitations of claim 1, as amended herein, with claim 1 having been amended to refer only to the generation of an interrupt in response to reserving a resource. Therefore, the Applicant respectfully submits that, for reasons described above regarding claim 1, claims 12-14 are patentable under 35 USC
20 §103(a) over Hashimoto in view of Williams and further in view of Reid.

Regarding claims 6-9, the Examiner said that claims 6-9 were rejected under 35 USC §103(a) as being unpatentable over Hashimoto-Williams and Reid as applied to claims 2-5 and further in view of U.S. Pat. No. 6,061,305 to Williams, hereinafter "Williams '305.

Regarding claim 6, the Examiner said that Hashimoto-Williams do not disclose expressly wherein said setup period change unit changes said setup period according to the average of the time differences measured by said time difference measuring unit. The Examiner further said that Williams, on column 14, lines 19-26, indicates that the setup period change unit changes said setup period according to the average of the time differences. The Examiner also cites Williams '305, column 4, line 66, through column 5, line 27.

The Applicant respectfully submits that adding the teachings of Williams '305 does not overcome the deficiencies of Hashimoto, Williams, and Reid in describing the limitations of claim 5, to which claim 6 merely adds limitations. Therefore, for reasons described above regarding claim 5, the Applicant respectfully submits that claim 6 is patentable under 35 USC §103(a) over Hashimoto in view of Williams, Reid, and Williams '305.

Regarding claim 7, this claim is modified herein by adding, "said predetermined small value being small compared to an average time between an interrupt being issued and said central processing unit which has received said interrupt requesting the use of said data segment." Support for this change is found in the specification as originally filed in the fifth complete paragraph on page 15, with the setup period being described as small compared to the interrupt latency, and in Figure 3a, which shows the meaning of interrupt latency.

The Examiner said that Williams '305 disclosed, in column 5, lines 23-27, wherein said setup period change unit changes said setup period to make said average a predetermined small value. The Applicant respectfully submits that Williams '305 does not say that the setup time is set to a value that is small compared to the average time between an interrupt being issued and said central processing unit which has received said interrupt requesting the use of said data segment, as required by claim 7, as modified herein.

Therefore, and additionally because claim 7 merely adds limitations to claim 5, for reasons described above regarding claim 5, the Applicant respectfully submits that claim 7 is patentable under 35 USC §103(a) over Hashimoto in view of Williams, Reid, and Williams '305.

5 **Regarding claim 8**, this claim is modified herein to indicate that said setup period change unit changes said setup period to cause an average value of a distribution of said time differences measured by said time difference measuring unit to become substantially zero. Support for this change is found in the specification as originally filed in the fifth full paragraph on page 15.

10 The Applicant respectfully submits that Williams '305 does not disclose causing the average value to become substantially zero, as required by claim 8, as amended herein. Therefore, and additionally because claim 8 merely adds limitations to claim 5, for reasons described above regarding claim 5, the Applicant respectfully submits that claim 8 is patentable under 35 USC §103(a)
15 over Hashimoto in view of Williams, Reid, and Williams '305.

Regarding claim 9, in this amendment, this claim is amended to indicate that the predetermined value is approximately zero. Support for this modification is found in the specification as originally filed in the first full paragraph of page 16.

20 The Applicant respectfully submits that Williams '305 does not disclose causing this value to become substantially zero, as required by claim 9, as amended herein. Therefore, and additionally because claim 9 merely adds limitations to claim 5, for reasons described above regarding claim 5, the Applicant respectfully submits that claim 9 is patentable under 35 USC §103(a) over Hashimoto in view of Williams, Reid, and Williams '305.

Regarding claim 11, the Examiner said that this claim was rejected under 35 USC §103(a) as being obvious over Hashimoto-Williams in view of Reid and further in view of U.S. Pat. No. to Brice, Jr. et al., hereinafter "Brice."

In this amendment, the dependency of this claim on claim 1 was retained, with references to the process of generating an interrupt in response to receiving data being eliminated, since claim 1 has been amended to only describe limitations for interrupt generation regarding the reservation of a resource. Support for this modification is found in the specification as originally filed in the third complete paragraph on page 7.

The Applicant respectfully submits that adding the teachings of Brice and Reid does not overcome the deficiencies of Hashimoto and Williams in describing the limitations of claim 1, as amended herein, with such deficiencies being described in detail in above in reference to the rejection of claim 1. It is further noted that none of the cited art describes the limitations added by claim 11 to those of claim 1, in the context of a device for handling interrupts relative to the reservation of a resource. For these reasons, the Applicant respectfully submits that claim 11 is patentable under 35 USC §103(a) as not being obvious over Hashimoto-Williams in view of Reid and further in view of Brice.

New Claim

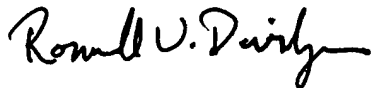
In this amendment, a new claim, claim 18, is added to be dependent from claim 2, having the limitations of claim 11, as originally presented, relative to a device for handling an interrupt generated in response to the reception of data. Support for this modification is found in the specification as originally filed in the third complete paragraph on page 7. This new claim is believed to be patentable because it merely adds limitations to claim 2, which is believed to be patentable over Hashimoto in view of Williams and Reid as described above relative to the rejection of claim 2. Furthermore, it is believed that adding the teachings of Brice

to those of Hashimoto, Williams, and Reid does not overcome their deficiencies in describing the limitations of claim 2, as amended herein, as such deficiencies are explained in detail above.

Conclusions

- 5 The Applicant respectfully submits that the application, including claims 1-18, is now in condition for allowance, and that action is respectfully requested, along with reconsideration and reversal of all objections and reasons for rejections.

Respectfully submitted,



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